COLORADO RIVER RECOVERY PROGRAM **Project No.: C-7A**
FY-2002/2003 PROPOSED SCOPE-OF-WORK for:
Wahweap SFH Facilities Expansion

Lead Agency: Utah Division of Wildlife Resources

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Category:	**Expected Funding Sources:**
__ Ongoing project	_ Annual funds
X Ongoing-revised project	X Capital funds
__ Requested new project	_ Other (explain)
__ Unsolicited proposal	

I. Title of Proposal: **Wahweap State Fish Hatchery Facilities Expansion.**

II. Relationship to RIPRAP:

General Recovery Program Support Action Plan

Manage genetic integrity and augment or restore populations (stocking endangered fishes)

IV.A.4.	Secure and manage the following presumptive genetic stocks in refugia
IV.A.4.a.	Razorback Sucker
IV.A.4.a.(1)	Middle Green River
IV.A.4.a.(2)	Upper Colorado River
IV.A.4.b.	Bonytail

IV.E.	Plan, design, and construct needed facilities
IV.E.2.	Design and construct appropriate facilities
IV.E.2.b.	Wahweap

Green River Action Plan: Mainstem

IV.A.	Augment or restore populations as needed, and as guided by the Genetics Management Plan
IV.A.1.	Develop augmentation plan for the four endangered fishes in the Green River
IV.A.1.c.	Implement plan

Green River Action Plan: Yampa and Little Snake rivers

IV.A.	Yampa River in Dinosaur National Monument
IV.A.1.	Augment or restore populations as needed, and as guided by the Genetics Management Plan
IV.A.1.a.	Develop stocking plan for bonytail in the Yampa River
IV.A.1.a.(1)	Implement stocking plan

III. Study Background/Rationale and Hypotheses:

The Utah Division of Wildlife Resources (Division) Wahweap State Fish Hatchery has been receiving and holding bonytail and razorback sucker since 1993 . Razorback sucker have been received from Ouray National Fish Hatchery, Utah. These fish have been held at Wahweap SFH primarily as a safeguard against catastrophic loss at Ouray NFH; they are often referred to as the back-up brood stock. Bonytail have been received from the Dexter National Fish Hatchery, New Mexico. Wahweap's primary activity with these fish has been to rear smaller fish up to larger sizes (from 100 mm to 300 mm, approximately), tagging the fish with either PIT tags or coded wire tags, and cooperating with Utah Division of Wildlife Resources units and other agencies to stock tagged fish into the Green River, Colorado River, and State of Colorado. The Wahweap SFH developed and has maintained a back-up brood stock of bonytail, as well. With few exceptions, native fish have thrived at Wahweap SFH. The broodstock animals are in good health and adding length and weight. Young fish destined for stocking realize good growth rates, particularly during the warmer months of the year. Broodstock fish, particularly bonytail, produce a limited number of young in the hatchery pond environment in most years.

The Upper Colorado River Endangered Fishes Recovery Implementation Program (Program) participants, in general, and the Utah Division of Wildlife Resources, in particular, are endeavoring to meet stocking goals for bonytail and razorback sucker in Utah. At this time, it appears that Ouray NFH will be able to meet the stocking goals for razorback sucker in Utah, through a strategy of utilizing hatchery, private, and state facilities. Goals for producing bonytail for stocking in Utah were originally to have been met by Dexter NFH, but this facility has become somewhat over-extended due to high demands on its production capabilities. Dexter has not reliably met annual requests for bonytail fry for Wahweap. Therefore the Program Office and the Division have determined that Wahweap SFH should endeavor to expand its role in support of bonytail stocking goals in Utah.

The Program Office and the Division have reviewed the facility needs for producing bonytail and compared them to those currently available at Wahweap SFH. Program and state cooperative efforts have, to date, resulted in the construction of 12 ponds of 0.4 acres each, a storage building, and a residence. The Program supports operation and maintenance of Wahweap SFH, as well as a portion of repairs as needed. Existing funds made available through the Program, which were originally designated for water supply and hatchery building, currently total approximately $270,000. These funds should be sufficient to develop a second water supply for the hatchery, a supply that would be required prior to any facilities expansion. No additional money is requested herein for the redundant water supply. The redundant water supply is necessary to secure against failure of one well and pump, and overall water delivery. Existing funding will also be sufficient to construct some needed security fencing.

Recent experience with the cost of capital improvements at Wahweap SFH indicates that such endeavors are appreciably more expensive than similar efforts conducted closer to urban centers. The remote location of the hatchery contributes appreciably to the costs of skilled labor and materials transportation. The previous scope of work submitted to the Program requesting funding for a well and a hatchery building is now thought to have been overly optimistic. Hence, this scope of work requests that all of the previously received funding be made available for a redundant water supply.

This scope of work also requests consideration by the Program of development of a hatchery building, which will be required for large-scale production of bonytail. The Program Director's office advises that $160,000 could be made available in the 2002 federal fiscal year for such an effort. This scope of work proposes that professional plans be drawn up and an accurate estimate for hatchery building construction be developed using these funds. Remaining funds would be applied to the construction of the building. It is likely that $160,000 will not be sufficient to completely design, construct, and outfit a professional hatchery building. The Division currently estimates that an additional $200,000, for a total of $360,000, would be required to complete the project. Because the Division also cares for native fish from the Virgin River system at Wahweap, and could use a limited area in the hatchery building for these species, the Division will approach interests from that basin for supplemental funding. If the existing Program funding is insufficient to complete the redundant water supply, Virgin River interests will be approached to make up any difference. The Division intends to request $52,000 from the Virgin River Resource Management and Recovery Program, approximately one-seventh of $360,000, to complete the hatchery building. In the interest of apportioning Program money as it is available, the Division requests $160,000 for federal fiscal year 2002. The Division anticipates requesting approximately $148,000 from the Program in fiscal year 2003 in order to complete the hatchery building project.

IV. Study Goals, Objectives, End Product:

Goal: Support recovery of bonytail in the Upper Colorado River system through introduction of hatchery-reared fish.

Objectives:

1. Develop a redundant water source and delivery system at Wahweap SFH using existing funding.
2. Develop plans for a hatchery building at Wahweap SFH.
3. Develop an accurate estimate for the construction of the hatchery building.
4. Initiate construction of a hatchery building at Wahweap SFH.

End Products:
A redundant water supply and delivery system (financed from existing funds).
A hatchery building with a quarantine facility. The hatchery building would be used to support bonytail propagation by taking gametes, fertilizing eggs, hatching eggs, and rearing very young fish until old enough to reside in outdoor ponds.

V. Study Area

Utah Division of Wildlife Resources, Wahweap State Fish Hatchery, Big Water, Utah (near Page, Arizona).

VI. Study Methods/Approach

A redundant water supply and required deliver system will be developed and constructed with existing funds. If existing funds are insufficient to complete this project, the Virgin River Resource Management and Recovery Program (VRRMRP) will be approached for the necessary balance.

Division biologists and hatchery staff from Wahweap SFH and elsewhere will work with the Program Director's office to arrive at specific hatchery building requirements, including necessary capacity and a quarantine facility. Other native species hatchery specialists will likely be consulted, such as those from the Dexter National Fish Hatchery, the Ouray National Fish Hatchery, the U.S. Fish and Wildlife Service Grand Valley, Colorado project, and the Colorado Division of Wildlife Mumma State Fish Hatchery, Alamosa, Colorado.

After the determination of building requirements, the Division will contract a professional architect/engineer to design the building and develop an accurate cost estimate, including consideration of the special needs and costs associated with the location. This design and estimate will be the basis of competitive bids.

A scope of work to the VRRMRP will be submitted for $52,000. The best qualified bidder will be awarded the contract to construct the building. If funds are still insufficient to complete the building, construction will be initiated to the extent possible, and a new scope of work for approximately $148,000 will be submitted to the Program.

VII. Task Description and Schedule

Task 1. Development of the redundant water supply, particularly the drilling of a new well, will be initiated with approval of this scope of work. The Division possesses approval from the State Water Engineer to begin development of a new well, as long as it is initiated before 1 November 2001. Security fencing around the hatchery residence will be contracted for. Installation is anticipated by 1 November 2001. The well and delivery system should be complete by 1 July 2002.

Task 2. With approval of this scope of work, development of hatchery building requirements will begin in earnest. Consultation and development of requirements should be completed not later than 1 November 2001. These requirements will be submitted to a qualified architect/engineer for development of detailed plans and a cost estimate. The plans and estimate should be available by 1 February 2002. Once the Division is in possession of plans and an estimate, competitive bidding can be initiated. Bids should be received not later than 1 May 2002. Construction could be completed by 1 February 2003.

VIII. FY 2002 work

Task 1.
1. Drill new well. Complete by 1 November 2001.
2. Install plumbing to deliver water from new well. Complete by 1 July 2002.
3. Install hatchery residence fencing by 1 November 2001.

Task 2.
1. Consult with experienced personnel and develop hatchery building requirements by 1 November 2001.
2. Contract architect/engineer to design building and develop cost estimate. Receive plans and estimate by 1 March 2002.
3. Conduct competitive bidding to construct hatchery building. Receive bids by 1 May 2002.
4. Initiate construction in FY 2002.

FY 2003 work
Complete hatchery building construction by 1 February 2003.

FY 2002 Program request:	
Redundant water supply and delivery system	$0 (utilize existing funding and other sources as needed)
Hatchery building	$160,000
FY 2003 Program request:	
Hatchery building completion	$148,000

IX. Program Budget Summary

FY 2002 $160,000
FY 2003 $148,000